

?

_____:

_____ : 1990 1 1999 12 (I, IIa) 31

70 48 1 가 20 , 2 가 7 27 23 4

9 , 4 2 90 29 가 14 ,

25 13 13 2

1 6 128

55 5 5 71.9%, 68.2%

가 가 5

(5 85.7%,

53.3%, p=0.09).

7%

가

3

_____:

I , IIa 가 가 가 가^{6,7)}

1)

3 mm (parametrialinduration)

10 ~ 20% 가 가^{2~5)} 가

2003 4 18 2003 6 4

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1.

1990 1 1999 12
(I,IIa)
27 (Table 1).
(I,IIa)
554 . 31 70
48 1 가 20 , 2 가 7 23
4 .
2 90 29 81%가
6 (Table 2).
가 14 , 6 , 3 , 2
, 1 , 1
25
2
10

Table1.PatientCharacteristics

		No.
Age (year, median)		31 ~ 70
(48)		
Pathology	Squamous cell ca*	23
	Adenocarcinoma	4
Stage	I	20
	II	7
Site of failure	Vaginal cuff only	14
	Pelvic cavity	9
	Combined	4

*Carcinoma

Table2.Recurrent SiteaccordingtoTime of Recurrence

	Time from surgery to recurrence (months)	
	6	>6
Vaginal cuff only	3	11
Pelvic cavity	-	9
Combined	2	2
??		
Total	5	22(81%)

2
1
.2
2.
13 13
1
4 180 cGy,
5 , 4,500 cGy 5,400 ~
6,300 cGy 0.5
cm 1 500 cGy 2 , 1,500 ~ 3,000
cGy .
180 cGy 5 ,
6,300 ~ 7,100cGy .
1 0.5cm
1 500 cGy 2 , 4,000 cGy .
1
5,400 cGy

3.

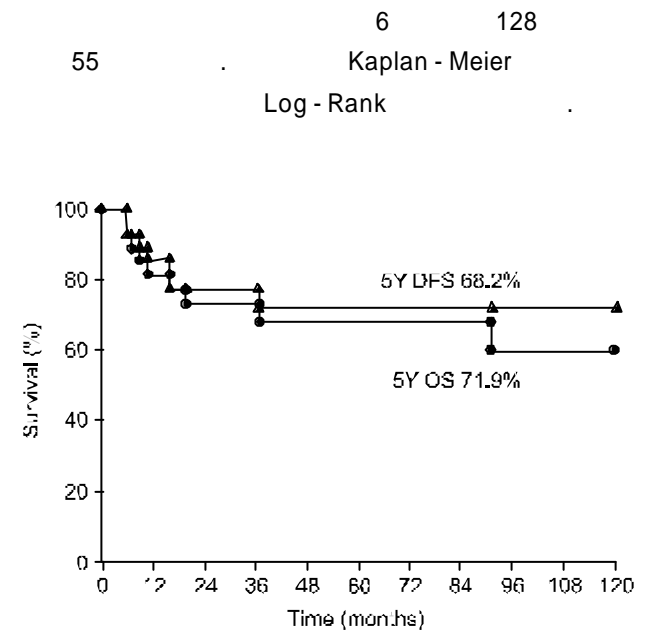


Fig. 1. Five year overall survival (5Y OS) and five year disease free survival (5Y DFS) curve in all patients.

1.

5 5
 71.9%, 68.2% (Fig. 1).
 12 14 5 85.7%
 62
 가 86% 5
 9 5 53.3% 4
 80
 4 1
 4
 5,400 cGy 69 가
 가
 (p=0.09)
 가 5 (Fig. 2).
 6 6 60%
 (3/5)가 6 22
 13 (60%)
 가 (Table 3).

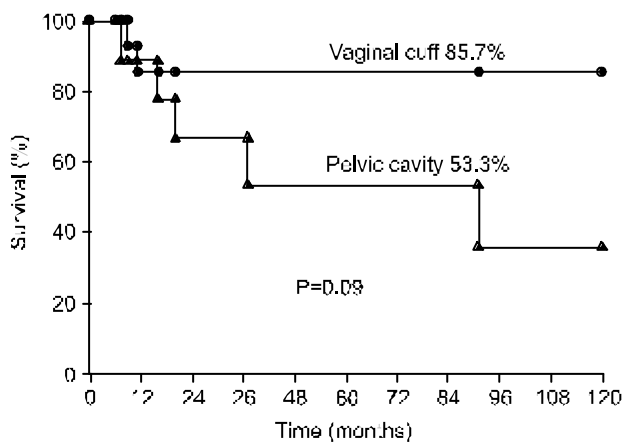


Fig.2. Five year disease free survival curve by site of failure. Patients with vaginal cuff recurrence had better survival with marginal significance (p=0.09).

2.

(I, IIa)

22.2%, 11% 1
 (Table 4).
 14 2
 1 9 1
 11 7%
 9 3 33% (,)
 1 83
 , 20 2 7
 , 16 1
 가 1 (11%)
 37
 , ,
 4 2 6
 1 35 가

Table 3. Time of Recurrence and Survival

	Time from surgery to recurrence (months)	
	6	> 6
Survival 1 year	4 (80%)	19 (86%)
Survival < 1 year	1 (20%)	3 (14%)
No evidence of disease (@5year)	3 (60%)	13 (60%)
Total	5	22

Table 4. Failure Patterns

Site of recurrence	Local recurrence	Distant failure
Vaginal cuff only	1/14 (7%)	-
Pelvic cavity	3/9 (33%)	1/9 (11%)
Combined*	1/4 (25%)	2/4 (50%)
Total	6/27 (22.2%)	3/27 (11%)

*Abdominal wall, peritonum, paraaortic lymph node

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300 cGy 5 3,000 cGy (53%) 10 126

128 27 71.9%, 68.2% 5

3. 4 40

1 10 1 3 6 (ag-gressiveness) 5

100% 3 6

가 3 가

5

10 ~ 20% (5 85.7% vs 53.3%, p=0.09).

3 70 ~ 90%가 5

8,9) I,IIa 42%가 1 , 69.2% 5

3 50% 9)

10,11) 7%

가

50 ~ 60 Gy 20 ~ 40 Gy 140 Gy, 12,13) 가

95 Gy 27 10

Jobsen 14) (medium stromal invasion)

18 50 ~ 60 Gy 16 1 2

(88%) 16 4 (31%)

44%

Friedman 15) (central 가

recurrence) 14 8 3.5 ~ 9 3 mm

Krebs 8) (parametrial induration) 가

312 13% (40/312) 5 (vascular invasion)

13% 11 9,18,19)

Webb 16) lb

104 5 5.7%

Larson 17) lb

11% (27/249) 17

15 8

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Abstract

Radiation Therapy in Recurrence of Carcinoma of the Uterine Cervix after Primary Surgery

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Purpose: The purpose of this study was to evaluate treatment results in terms of the survival and failure patterns subsequent to radiation therapy in recurrent cervical cancer, following primary surgery.

Material and Methods: Between January 1990 and December 1999, 27 patients, with recurrent cervical cancer following primary surgery, were subsequently treated with radiation in the Department of Radiation Oncology, at the Keimyung University Dongsan Medical Center. Their median age was 48, ranging from 31 to 70 years old. With regard to the initial FIGO stage on presentation, 20 and 7 patients were stages I and II, respectively. Twenty three patients had squamous cell carcinomas and 4 had adenocarcinomas. The time interval from the primary surgery to the recurrence ranged from 2 to 90 months with a median of 29 months. The recurrent sites were the vaginal cuff alone, the pelvic cavity and combined recurrence in 14, 9 and 4 patients, respectively. Radiation was performed, with external and vaginal intracavitary radiation in 13 patients, external radiation alone in 13 and vaginal intracavitary radiation alone in another one. The median follow-up period was 55 months, ranging from 6 to 128 months.

Results: The five year disease free survival (5y DFS) and five year overall survival (5y OS) rates were 68.2 and 71.9%, respectively. There was a marginal statistically significant difference in the 5y DFS in relation to the recurrent site (5y DFS, 85.7% in vaginal cuff recurrence alone, 53.3% in pelvic cavity recurrence, $p=0.09$). There was no difference in the survival according to the time interval between the primary surgery and a recurrence. There was only a 7% local failure rate in the patients with a vaginal cuff recurrence. The major failure patterns were local failure in the patients with pelvic cavity recurrence, and distant failure in the patients with a combined recurrence. There were no complications above grade 3 after the radiation therapy.

Conclusion: Radiation therapy was safe and effective treatment for a recurrent carcinoma of the uterine cervix following primary surgery, especially the external beam radiation and vaginal intracavitary irradiation achieved the best results in the patients with a vaginal cuff recurrence following primary surgery.

Key Words: Uterine cervical cancer, Primary surgery, Recurrence, Radiation therapy